

# Kai Held

## Cloud/DevOps Engineer



+49 151 41650257

held@ka1.io

https://ka1.io

## Skills & Expertise

### AWS & Cloud

- Core-Services: EC2, ECS, EKS, Lambda, API Gateway, DynamoDB, SQS, SNS
- Storage & Databases: S3, EBS, EFS, RDS, Aurora
- Networking: VPC, Route53, CloudFront
- Security: IAM, Cognito, WAF, KMS, Secrets Manager



### CI/CD & Automation

- GitHub, GitLab, Bitbucket



### Kubernetes & Containers

- Deployment: Kubespray, Helm, Kustomize, Crossplane
- GitOps & Dev Tools: ArgoCD, Flux, Skaffold, DevSpace



### Observability

- Monitoring: Prometheus, Grafana, AWS CloudWatch
- Logging: Loki, Kibana (ELK), Elasticsearch, OpenSearch
- Tracing: Tempo



### Authorization & Authentication

- OAuth2 (& PKCE), OIDC
- SAML
- Tools: AWS Cognito, Keycloak



### Development

- Full-Stack: Astro, Remix, Nuxt
- Backend: Go, Python, JavaScript, TypeScript
- Frontend: React, Vue.js



### AI & LLMs

- API SDKs: OpenAI, Anthropic Claude, Google Gemini, Mistral
- Vector Databases: Chroma, Weaviate, Qdrant, pgvector
- Tools: Haystack, LangChain, Langfuse, Flowise, Streamlit, Chainlit



## Certificates & Trainings

- AWS Certified SysOps Administrator – Associate
  - AWS Certified Cloud Practitioner
- <https://www.credly.com/users/kai-poblocki/badges>



## Projects/Contracts

### BMW AG

April 2024 – Present

#### Senior AWS DevOps Engineer

**i** Central Cloud Platform team, focusing on enabling internal customers (e.g. <https://bmw.de>) through robust cloud solutions (AWS).

- AWS CDK (TypeScript):
- CI/CD: GitHub Actions
- Observability: Grafana, Loki, OpenSearch
- Fullstack Development: Vue.js & Nuxt 3

### Rohde & Schwarz SIT

October 2023 – March 2024

#### Backend Python Engineer

**i** Conceptualizing & development of need-to-know domain-based identity and access management in a highly secure Environment.

- Backend development (Python): API & microservice development

### Bundesdruckerei GmbH

January 2023 – April 2024

#### Site Reliability Engineer

**i** Constructing & operating a data science platform in a highly secure environment.

- High Security Kubernetes Bootstrapping: Kubespray
- GitOps: FluxCD
- Monitoring/Logging: Prometheus, Grafana, Loki, Elasticsearch
- Storage: MinIO, Longhorn
- Authentication: Keycloak
- Infrastructure as Code (IaC): Ansible, Helm, Kustomize
- CI/CD with GitLab

## InformMe

April 2023 – October 2023

### Senior AWS DevOps Engineer

**i** Architecting & Developing GDPR compliant AWS Account Factory for MedTech Startup.

- Architecture: AWS Control Tower Setup, Service Catalog, CfCT Pipeline, Node.js-Lambdas
- Infrastructure as Code: AWS CDK (TypeScript), CloudFormation
- AWS Identity Center (SSO)
- Custom SCPs, Config Rules & SRA
- On-Prem Migration to ECS Fargate & Lambda

## Volkswagen AG (via Rackspace)

Dezember 2022 – January 2023

### Senior Cloud Architect (AWS)

**i** Supporting Volkswagen short-term around AWS IAM & resolving several findings of an internal revision; analyzing the existing Environment and define security solutions with minimal effort.

## Eurofins

July 2021 – November 2022

### DevOps Engineer (AWS, Kubernetes)

**i** Architecting & Engineering AWS EKS (Kubernetes) & supporting AWS Services in a Greenfield Project.

- Greenfield: Setting up & Maintaining EKS (Terraform, Crossplane)
- Kubernetes: Helm, ArgoCD, AWS LB Controller, ExternalDNS, External Secrets, Consul, EFS CSI
- Kubernetes monitoring & Logging: Prometheus, Grafana, Loki, Elastic Search
- Kubernetes security: Cluster Hardening (Bottle Rocket)
- Setting up Kubernetes Authentication via OAuth2/OIDC (PingID) & AWS Cognito
- Migrating on-prem workloads to AWS Serverless Stack: Lambda, API Gateway, Cognito, DynamoDB
- Setting up AWS Security: IAM, SSM, CloudTrail, Secret Manager
- Setting up & Maintaining Kubernetes-native development (Skaffold)
- Infrastructure as Code (Terraform, Crossplane)
- CI/CD Pipelines with Azure DevOps & GitLab
- Linux Administration (Debian, Ubuntu, RHEL)
- Programming with Bash, Python & Go
- Data Engineering (AWS RDS: PostgreSQL, MS SQL)

## **Siemens AG & Siemens Energy**

October 2020 – June 2021

### **AWS Cloud/DevOps Engineer**

**i** Migration of on-premise B2B E-Learning Platform to AWS ECS Cluster & general AWS Support for Siemens Energy Carve-Out.

- Infrastructure as Code (Terraform, Ansible)
- Setting up AWS Security: IAM, SSM, CloudTrail, Secret Manager
- Setting up SAML & OIDC Authentication
- Working with Container-Tools: Docker, ECS
- CI/CD Pipelines with GitLab
- Linux administration (Debian, Ubuntu)
- Scripting with Bash, Python, JavaScript & Go
- Data Engineering (AWS RDS: PostgreSQL, MS SQL)
- Configuration and deployments of EC2 autoscaling Groups and Launch Templates with load balancing

## **Professional Experience**

### **ventx GmbH**

June 2020 – December 2022

### **AWS Cloud/DevOps Engineer**

- Working on several DevOps Projects
- Architecting AWS Cloud Frameworks
- CI/CD with BitBucket, Gitlab, Jenkins and Jira
- Linux administration (Debian, Ubuntu, CentOS)
- Working with Container-Tools: Kubernetes, OpenShift, Docker
- Consulting and Support for the DevOps Teams
- Documentation of development
- Building highly available and scalable Multi-Tier AWS infrastructure
- Building serverless infrastructure with AWS Lambda, API Gateway and DynamoDB
- Infrastructure as Code with Terraform and CloudFormation
- Configuration and deployments of EC2 autoscaling Groups and Launch Templates with load balancing

### **Bamberger VerlagsGruppe**

February 2019 – May 2020

### **System Engineer**

- Agile project coordination (e.g. Development of MS Dynamics NAV, Helpdesk-, Wiki-Software)
- Educational data mining/scraping with Python for Learning Analytics and Business Intelligence
- Data engineering (Python: Numpy, Pandas) and maintenance of databases (MySQL, PostgreSQL)
- Web development (HTML, CSS, JavaScript) and deployment (Linux: Debian, Ubuntu, CentOS)
- Defined system standards and processes for provisioning and maintaining software on Linux
- Developed scripts for unattended installations (start scripts, installation automation, etc.)
- Maintaining on-premise server infrastructure (Windows; Linux: Debian, Ubuntu, CentOS; VMWare)
- Project budget planning (e.g. ~105k € image database project, ~95k € ERP development)

## **C.C.Buchner Verlag**

**May 2015 – February 2019**

### **DevOps Engineer (working student)**

- Creating workflows to optimize processes
- Automating tasks with Python (e.g. conversion scripts for various media outputs)
- Sub-project management and assistance
- Front- and Backend web development (e.g. shop website, ticketing system)
- Maintaining on-premise server infrastructure (Windows, Linux)

## **Computing Centre University of Bamberg**

**January 2013– May 2015**

### **System Administrator & IT-Supporter (student assistant)**

- Maintenance of university data centre hard- and software
- Creating install-images for PC-Pools and maintaining hardware
- Network administration (Linux: Debian, Windows Server)

## **Education**

### **April 2017 – March 2020**

University of Erlangen-Nuremberg:

Analytical Philosophy (*Master of Arts*, grade: 1.2)

### **October 2012 – March 2017**

University of Bamberg:

Philosophy and Political Science (*Bachelor of Arts*, grade: 1.5)

## **Scholarships**

### **March 2016 – March 2020**

Scholarship of the Max Weber Program according to the Bavarian Eliteförderungsgesetz

### **November 2017 – March 2020**

Online-Scholarship e-fellows.net

## **Languages**

- German: native
- English: fluent (spoken and written)
- Polish: intermediate
- French: basic